REGULATION OF PUBLIC SERVICE CORPORATIONS—DISCUSSION

EDWARD W. BEMIS: Professor Gray admirably portrays both the necessity and difficulty of public regulation of privately owned utilities. These difficulties he traces in part to the acceptance, fortunately not complete, of the duplication theory by many courts and commissions instead of the theory of cost or sacrifice, as the criterion of fair value in rate making.

There is much hope, however, from the fact that our higher court has not only avoided any acceptance of the cost of duplication of plant or business as the sole or even the chief question in rate making, but has emphasized "fair value" instead of "value" and has thus introduced considerations of ethics and public policy.

It has paid very little attention either to the market value of the outstanding securities or to any capitalization of present and prospective income. It has ignored what a public utility as a whole will sell for, and has thus abandoned the use of the word "value" in its economic and ordinary significance of power in exchange.

In the Minnesota Rate Case, the last decision of the United States Supreme Court, the land was only valued at the value of the adjoining land, yet no railroad could buy a right of way without paying more than this. The court went further and refused to allow any addition to this land for engineering, interest, and other overhead charges while the track was being laid upon the land, yet the application of some overhead charges to land as well as to other items, and, indeed, a large amount for interest is of the very essence of a reproductive theory.

Some of our courts, and especially our United States Supreme Court, and some of our commissions, notably the Massachusetts Gas and Electric Light Commission and the Interstate Commerce Commission, the two oldest and most famous of the group of commissions, are recognizing the importance of accounting and financial history in reaching a fair value of property for rate making. Unfortunately, data of this character have not been presented with anything like the fullness with which engineers have presented their theory of the cost of duplication.

A new epoch has opened with the act of last March for the valuation of all railroads, steamship lines owned by them, and of telegraph and long distance telephone lines, and other inter-

state carriers now subject to the commission. This act clearly and emphatically requires the Commission to gather the data upon the original cost and financial history of their property as well as upon its cost of duplication.

After the information has been presented to the Commission, there will be a great opportunity for an educated public opinion such as this Association may help to form, in emphasizing, for the benefit both of the Commission and of the courts, and of those who appoint or confirm members of commissions and courts, the vital importance of presenting the real cost of the property as compared with the absurd conclusions that have resulted from most efforts to present the reproductive theory. Indeed, the reproductive theory, when logically presented, is bound to give a company not only the present value of the land even when donated, and the cost of cutting through and relaying all paving laid over mains without cost to the company, but also all surplus earnings invested in this property. Many other unearned increments are secured by our public utilities under this method of valuation as described in the paper before us.

Much might be said in confirmation of another point made by Professor Gray, relative to the difficulty of securing the right kind of men and sufficient financial equipment for efficient regulation. I believe more harm than good is being done in many of the states by giving to a poorly equipped and poorly trained commission powers of regulating securities, and taking away powers of regulation and ownership from cities. It is all right to set up good standards of service and to secure publicity and uniformity of accounts, but to regulate poorly in other ways is usually worse than not to regulate at all. In putting the stamp of public approval upon new securities for needed extensions great care must be taken to prevent giving a moral if not legal validity to inflated securities, which they ill deserve. Precedents are being established that are likely to cause trouble in the future.

Our state commissions too often are being used to check the growing spirit of home rule and municipal ownership instead of guiding those movements through proper accounting methods and engineering advice.

It is one of the curious phases of the modern craze for state regulation that it is assumed that city regulation has proved a failure. As a matter of fact, our cities have never been given such rights of regulation as are now being showered on state commis-

sions. Cities have usually been given only the rights to tie themselves up for a generation or more and too often for nine hundred and ninety-nine years, or all eternity, but that is not regulation. Until our large cities have been given a fair trial in regulating their utilities, in the full sense in which our state commissions are given that right, no one but the spokesmen for these monopolies should advocate the still further tying of the hands of the local bodies which these utilities are learning to fear.

Professor Gray intimates that regulation is exceedingly difficult and that ultimately public ownership may be found to be better than even the best regulation. There is at least enough force in this contention to make it vitally important to check the present tendency of state regulating bodies to handicap home rule and public ownership and validate existing watered securities, while they are not equipped with sufficient accounting and engineering staffs and a personnel strong enough to secure reasonable rates. The public is far more concerned in rates and service than in the amount of securities unless by their action our commissions assume a dangerous responsibility therefor. Too much attention cannot be given by the Association to the various problems before us in the control of public service corporations.

With such little success as yet in the regulation of our recognized and comparatively simple but exceedingly powerful natural monopolies, we can recognize how much more difficult would be the policy urged by some, of regulating the charges of our so-called industrial trusts.

In the rapidly increasing efforts to regulate our city and national utilities, however, a considerable body of men is being trained for this new form of public service. While some no sooner acquire this training than they accept employment from the corporate interests, yet the number of trained men remaining on the public side is growing.

No one can become really familiar with the true status of public regulation today, in most states, without being startled at the flippant way in which new state commissions are yearly created and given increased powers, without any recognition of the ways in which nominal regulation in some states is playing into the hands of monopoly, and in some important respects is proving to be worse than no regulation at all.

It is not enough in any state or city to decide that regulation is needed. Beware lest the legislature so change the best drawn

law, or lest the appointing power select such poor agents for the execution of the law, as to make the last state of the consumer and of the body politic worse than the first.

It is often asserted that regulation of monopoly charges should be taken out of politics. Monopoly charges, however, are analagous to taxation and can never for long be taken out of control by the voter without more benefit to the investor than to the user. An electorate of college graduates or payers of the national income tax, or officials from those classes, would not govern in the interests of all. Regulation and expert bodies to regulate we must have, but through them we should seek rather to secure the fullest information and control of state wide and nation wide utilities, while crippling to the least possible extent the growing interest in regulation and ownership of our legal bodies.

JOHN E. BRINDLEY: It is altogether impossible, in the brief time allotted for this discussion, to present a critical estimate of the instructive paper on "The Control of Public Service Corporations," which has just been read. The most that can be accomplished is, first, to mention two or three fundamental principles well thought out and clearly stated, and, second, to question certain other conclusions, which, if allowed to pass unchallenged, may have a tendency to lead the public astray from the pathway of sane thinking and therefore of just and efficient methods of administration.

First of all, the contrast between the pioneer ideals of free competition and extreme individualism and the social or general welfare philosophy of the present day is presented in an excellent manner; a contrast, by the way, which must not be forgotten, if we are to develop efficient administrative systems for the regulation and control of public service corporations. In fact, when we consider that the individualism of 1787 was the dominating force in our national life for more than a century and still exercises a powerful influence in shaping public opinion, no one need be surprised that it requires time and effort for the people to face in the opposite direction and look upon certain corporations as natural monopolies which must be regulated or owned by the state.

In this connection, the statement made and repeated by Professor Gray that the public has abandoned the competitive theory of controlling public utilities is not strictly accurate; for, while it is true that the people through their chosen representatives are

creating boards or commissions clothed with greater or less powers they are clinging at the same time like shipwrecked mariners to competition as the real solution of the problem. The truth is that the thought of the average elector is passing through a period of transition from the theory of competition to the theory of agency or, what means essentially the same thing, the theory of natural monopoly and consequently state ownership or control. Certainly the Administration at Washington must hold this view, it being announced through the press during the last two weeks that regulation by commissions is but a necessary means to accomplish the end devoutly to be wished, viz., the restoring of competition. I assume that what is true of the general government is also true of at least forty-five of the commonwealths.

While it is a fact that the right of the state to regulate certain industries was long ago a well-established principle of the common law, and that the decisions of the United States Supreme Court in Munn *vs.* Illinois (1876) and Smythe *vs.* Ames (1898), the Interstate Commerce Act of 1887 with the amendments that followed, especially in 1906, and laws creating a number of state boards or commissions, represent substantial progress in the control of those natural monopolies arising from qualities inherent in business, another decade, perhaps a generation, will pass before the transition from the theory of competition to the theory of monopoly has become well established in the public mind.

Second, the general theory of regulating service and rates is well stated as follows: "The scientific theory is that the utilities should render adequate, safe, and universal service, at just, reasonable, and fair prices to all, and that the sovereignty shall be the final judge in every case of these matters."

I anticipate that no serious objection will be made to this clear statement of a well-known principle either by economists or by representatives of the engineering or legal profession who have made a careful study of the problems under consideration. A fair return on a fair valuation, reasonable rates, efficient service, etc., are familiar phrases in the political and economic literature of the day.

In the third place, however, we come to a more serious problem, that of working out a just and practicable method of rate control. Here again students of public utilities will generally accept the following brief comprehensive statement: "So far as the control of rates is concerned, there are three main elements

involved in the problem of regulation: first, the amount on which the owners are entitled to a fair return; second, the fair rate of return under the circumstances of each case; third, the rate of charge that will make such return. It will readily be observed that the fair return is the product of the rate of charge and the base amount over which the rate of return must be spread."

In formulating this doctrine of a fair return on an amount or valuation which is equitable both to the investor and the public, Professor Gray is thinking of the field of natural monopoly and the law of monopoly price. To regulate and control this price or rate, as the case may be, it is necessary first of all to determine the base or fair valuation on which a so-called reasonable net return may be computed. The statement made in the paper is in substantial agreement with the views held by Mr. Halford Erickson, an eminent practical authority on rate problems, who said to this Association in December, 1907, that "In determining what is a reasonable rate, therefore, it is also necessary to know the value of the property used for the purposes of transportation as well as what constitutes a fair rate of interest upon this valuation."

To sustain the contention that, in dealing with public service corporations, a fair valuation must first be determined, second, a reasonable rate of dividend, and third, a rate of charge that will produce said dividend, a long list of able authorities, economists, engineers, and attorneys might be quoted. I shall conclude this part of the discussion, however, with a statement made by Professor Henry C. Adams in a paper read before The American Economic Association in December, 1909: "An authoritative valuation is essential for determining the reasonableness of the price paid by the public for services rendered."

Thus far it will be observed that the only important criticism of the paper relates to the statement that the public has abandoned the competitive theory. When we pass, however, to the fourth and principal theme of Professor Gray, viz., his very emphatic rejection of the principle of fair valuation as a basis of determining reasonable rates, I anticipate that there will not be an unanimity of opinion among careful students of public utility regulation. On this point the thought of the author can best be presented in his own words, bearing in mind that the necessity of some kind of a valuation, as above outlined, has already been recognized.

We read as follows: "The gist of control is a control of rates. In practice, we have made appraisals and valuations the basis of rate control. This is fallacious from the start and has always led to undesirable results and to the absence of real control, for in the business world value depends entirely on estimated returns or earnings, but returns depend on rates, and the circle thus becomes complete. I repeat that on any sound principle there should be no valuation for rate regulation but history, that is, a statement of outlay, or money spent and services rendered, nothing more." Later in discussing the cost of developing business, going value, and good will he assures us that we should get back to "the sound theory of principal and agent, and consequently away from the pretenses of valuation." And finally, in passing strictures upon the elements of value allowed by the Wisconsin Railroad Commission in the Superior Rate Case, we read: "Yet our learned courts and tethered commissions find no difficulty in ascribing value to all of these items, and saddling a charge to pay an income upon them on the public to the remotest generations. So far have economics and law parted company, under the persuasive influence of attorneys, accountants, and engineers."

A critical analysis of these statements and indeed of the paper considered as a whole will reveal, in my judgment, two weak links in the chain of reasoning. First, to sustain his argument that we should get "away from the pretenses of valuation," we are informed that "in the business world value depends entirely on estimated returns or earnings, but returns depend on rates, and the circle thus becomes complete."

It will be generally admitted that in the ordinary business world, where competition prevails and controls prices, net earnings determine the value; but in another connection the author has stated in emphatic terms that the public has rejected the competitive theory and that in discussing public service corporations we are dealing with natural monopoly. If this is true, the apostles of fair valuation are not reasoning in a circle, for even Professor Gray admits, as already explained, that the law of value in the case of natural monopoly is just the reverse of that which prevails in the field of competition, which is another way of saying that a reasonable rate of charge is one of the results and not a cause of the fair value of a given utility.

But it should be stated in this connection that the author him-

self is not able to reject all "pretenses of valuation"; for in lieu of the so-called fair valuation fixed by "learned courts and tethered commissions," he substitutes a plan of valuation, which, to quote the language of the paper, is to be "a statement of outlay, of money spent and services rendered, nothing more." A score of pertinent questions will at once occur to the members of this Association. How is the outlay to be determined? By what method is the value of services rendered to be fixed? Does not the fair value of a given utility have something to do with the value of services rendered? If Professor Gray has in mind money spent for a given plant in its present condition, how can this be determined except by a careful study of the numerous plant elements in their various stages of depreciation? In other words, how are we to avoid the necessity of consulting the economist, the lawyer, and the civil engineer?

Indeed, the plan of fixing value on the basis of "a statement of outlay, of money spent and services rendered, nothing more," would seem to be open to serious criticism in view of the declaration by the Interstate Commerce Commission that "No court, or commission, or accountant, or financial writer would for a moment consider that the present balance sheet statements purporting to give the cost of property suggest even in a remote degree a reliable measure either of money invested or of the present value." Nor does the author seem to be entirely clear in his own mind as to the real merit of his plan of valuation; for in one place we read: "In fact, the moment that we depart from the actual expenditures as shown by the books of the company, when these are properly kept, we are up in the air, and estimates offered have no relation to anything in the heavens above or the earth below." But in another connection, when the subject of surplus earnings is under consideration, the opposite opinion is thus expressed: "The relation of the average balance sheet to facts has about the same relation that the value found under the theory of cost of reproduction has to realities, for under whatever theory of corporate management the assets are inflated the liabilities must be correspondingly inflated to attain a balance."

In conclusion, a few general observations regarding the paper may not be out of place. The extreme statement of the theory of principal and agent wherein it is alleged that the agent is entitled to only a fair return and that everything above that sum belongs to the principal or, in other words, the state, is only

another way of presenting the well-known doctrine of Professor Henry C. Adams that everything above a fair return should be taken by the state in lieu of all other taxes. Such a doctrine, if put in practice, would no doubt result, first in poor service and later in receiverships and possible state ownership. The Chicago street railway settlement giving the companies 45 per cent and the city 55 per cent of everything above a fair return is, in my judgment, a more statesmanlike system. It is the proper business of law-making bodies and commissions to regulate and control, not to destroy, private initiative.

Again, it should be noted that the strictures in the paper on the principle of valuation are in reality directed against one of the many elements of value which must be considered by courts and commissions in arriving at a fair valuation for rate making purposes, viz., the cost of reproduction new. It may be that the Wisconsin and Massachusetts commissions have been lured by the siren song of accountants, attorneys, and engineers employed by the corporations and as a result have fixed certain valuations too high. I am not sufficiently familiar with the Superior, Haverhill, and Fall River cases to pass judgment on this point. The fact that the cost of reproduction new, so-called, may be open to criticism does not mean that the whole principle of fair valuation as such must be rejected.

Finally, it should be repeated that the public mind is by no means a unit on the proper relation of the state to industrial action. Some believe in state ownership, others in state control, and still others, perhaps a majority of the electorate, feel that natural monopoly is contrary to the principles of free government and should, therefore, be destroyed. Until the average American commonwealth develops a much more efficient system of administration it is not in a position to adequately control, much less to own and operate, the larger public service corporations. This being true, it is doubtless good statesmanship to retard the growth of monopoly by restoring competition wherever possible, bearing in mind, however, the obvious fact that public utilities are natural monopolies by virtue of qualities inherent in the business and that while we may delay we cannot prevent irresistible economic tendencies.

JAMES E. BOYLE: Professor Gray has succeeded in pointing out the weakness in our present system of control of public service

corporations. In my opinion he has proved his case. But I, for one, regret that he has not given us a fuller view of the remedy which he would deem adequate to cure present defects in our system of control.

On the following five important points I am in entire agreement with Professor Gray: (1) Important industries which are monopolies are, from the economic standpoint, public utilities, and they should be so classified also from the legal standpoint, and should be subject to public regulation as such. (2) The success of our control thus far has extended merely to the grosser forms of abuse, but has not reached the root of the evil. (3) It was a judicial error—and one of the first magnitude—that gave us the doctrine of valuation instead of investment as the basis of rate making. (4) The Fourteenth Amendment has had a mistaken interpretation by our higher courts, the effects of which are most serious. (5) Losses and surplus of public utility corporations have been capitalized, thus unduly but legally increasing the burden of rate charges.

The speaker holds, if I understand him aright, that there is *hope* through regulation by a commission provided the courts "wake up," reverse their previous decisions, and accept investment rather than valuation as a basis of regulation. How much "hope" he does not say. Yet this question of remedy is exactly the crux of the whole matter. And if regulation by a commission is to be accepted as the proper step towards a final solution, is the commission to be a home-rule commission in each large city, or is it to be a centralized commission, one for each state to regulate intrastate corporations? I note that such a good authority on municipal public utilities as Delos F. Wilcox favors a certain liberal amount of home rule, while another great authority, Dr. B. H. Meyer of the Interstate Commerce Commission, favors centralizing such control in one state board or commission. I regret that the speaker did not give us any hint as to his views on the question.

And I am further sorry that he said nothing about what is widely viewed as a serious evil, namely, the tremendous Wall Street domination in the field of all great public utilities. For even if the courts should repent of their past sins and be converted to the new and correct doctrine of rate regulation on an investment basis, this new situation would not affect the evil of Wall Street control.

I presume the majority of economists are agreed that at the

present time government ownership of the great public utilities would be too dangerous an experiment to make. Many examples of the flagrant abuse of patronage, both federal and state, are too fresh in our minds to permit us to feel otherwise. This obstacle to government ownership may in the course of years be removed. The question of private initiative was raised by the speaker. I, for one, do not believe that private initiative is due to the hope for speculative gains. The greatest private initiative in the fields of art, literature, medicine, science, statesmanship, and other fields has never been connected with the thought of economic reward.

If there is one economic tendency stronger than any other at the present time, it is obviously the drift towards greater social control—control not merely of production but of income itself. What is all this long agitation about watered stock for the past several years but a sort of blind groping after a way of preventing persons from securing incomes where they had invested neither labor nor money. And now comes the ever-swelling chorus of the single taxers, forcing on the public attention the fact that the landlord who appropriates unearned increment is also taking an income where he has invested neither labor nor money. And last of all come our Blue Sky Laws, under the winning title of "Conservation of Business," and having in view the prevention of the promoter's reaping where he has not sown. Increased social control seems to be inevitable. In the case of railroads, which are by far our greatest public service corporations, one form which this social control may take was pointed out last year by Mr. William Cook, in an article entitled "Industrial Democracy or Monopoly."[1] I believe his scheme deserved more attention than it apparently received. In brief his plan accepted the unwisdom of government ownership; it accepted concentration of control as inevitable; it proposed a single holding company for all the roads, supervised by the government and with earnings guaranteed by the government. To me this plan looks both feasible and desirable. However this plan is doubtless too radical to win general approval in the immediate future. Meantime, what shall our next steps be? We have the commissions now for the control of public utilities. Apparently the first thing is to pray for a change of heart in our courts, that the commissions may deal properly with rates. But there are two other things which are essential to com-

[1] *McClure's Magazine*, Jan., 1913.

mission control. The commission should have (as the Interstate Commerce Commission does *not* have) control over capitalization, control over the issue of all stocks and bonds. The commission should also have complete control over accounting.

To talk about enforced competition in the field of public utilities appears to me as absurd. We must, in my judgment, accept monopoly and either regulate it or own it.

When we have perfected our commissions to regulate these utilities, then, perhaps, and not till then, can the people try public ownership. Public ownership seems to be the final solution.

JAMES E. ALLISON: I have read with very great interest Dr. Gray's paper as submitted to me in manuscript and regret that he has not had the opportunity under the rules to read the full text. It takes a very broad view of the question and is of great interest to those who have been in touch with regulation work. There are some points, however, upon which Dr. Gray leaves me, at least, in some confusion as to his meaning.

If the term "valuation" is used strictly for defining a determination of exchange value I will concede that such valuation would be futile, for, as stated by Dr. Gray, the value (through the rate of return) ultimately depends upon the rates, and to change the rates would mean to change the present exchange value, so if we first establish the present exchange value we could not change the rates.

I think that Dr. Gray would not say that so-called valuation work or appraisals for rate regulation have been made entirely on a basis of obtaining present exchange value, although I will agree with him that in most of our court opinions and in a great part of our commission decisions there seems to be no clear understanding in the minds of the judges or commissioners as to the difference between costs and values. But to those who understand the work of regulation, the word "valuation" does not mean the determination of the exchange value of a plant but means merely the determination of the amount of capital in the enterprise upon which it is proper that the investors should earn a reasonable return. Perhaps unconsciously in some cases, only half consciously in others, the commissions and courts have caused the general trend of results to work toward this end. Costs have been used (whether present costs or original costs) to build up a total amount of estimated investment, and it is only after this

point has been reached that most of the courts and commissions have exhibited their confusion of mind as between costs and values by erroneous methods in connection with so-called "going value" on the one hand or "depreciation of investment" on the other.

Dr. Gray has very ably placed before you the theory of agency, but agencies, as we all know, are of many different kinds, and the, contract as understood between the agent and his principal is a vital element in passing on any question of justice which may arise between them. So long as public utilities are privately owned the furnishing of capital is a part of the agent's service. There must be a reward to the capitalist for the use of his capital and this reward must necessarily be based upon some determination of the amount of such capital.

Dr. Gray has stated that there should be no valuation for rate regulation but history, "that is, a statement of outlay of money spent and services rendered, nothing more." By this statement I presume that Dr. Gray intends to advocate what is known as the original cost theory of valuation and I take it he will agree with the definition of the original cost theory of valuation as being the original cost of the present existing property, for any other interpretation of original cost opens the door to a much greater exaggeration of the capital item than is possible under the cost-of-reproduction,—new theory against which he brings many very proper objections.

Reverting to the agency theory, we must recognize a just interpretation of the contracts of agency, and in applying this test we shall find that no one theory of so-called valuation is likely to bring a just result. In dealing with the past we must conform more or less to what was the accepted understanding between agent and principal. In dealing with the future it should be especially evident to economists that the laws controlling the flow of capital into the public utility enterprises can not well be regulated by statute or arbitrarily made rules, and that if we are to retain our present system of privately owned utilities it must be the endeavor of those in charge of the regulation of them to find what might be called the natural economic laws governing the investment and apply these laws to their work as regulators.

If commissioners or legislators attempt to regulate incomes from public utilities without regard to the amount of capital invested or to the terms necessary to induce capital to enter these enterprises, then we shall find, if the arbitrarily established re-

turns are too low, that capital will refrain from entering the public service and the public will be compelled to furnish its own capital, which means public ownership.

It might be contended that investors having their capital already in these enterprises would be forced to submit to any return determined by authorities having power to do so, but, aside, from the extreme injustice of such a position, we should find that, if returns are not adequate to meet the natural economic laws the result would be merely the confiscation or partial confiscation of the present owners' interests in the property. Such a condition could exist only temporarily, for the public utilities must constantly expand and are constantly needing new capital. If they do not expand the public is not properly served, and they can not expand unless capital can be induced to enter them.

An attack on some of the methods or theories now used in so-called valuations can readily be sustained, for none of them appear to be perfect and some of them are very faulty indeed. It should be remembered, however, that what may be called the science of valuation for public regulation is quite new and as it becomes more of a science it is probable that many of its present crudities will disappear.

In this brief talk I have brought out no fundamental disagreement with Dr. Gray. My intention has been merely to comment on certain points which in the broader scope of his paper could perhaps not well be treated fully.

W. F. GEPHART: It seems to me that the writer of the major paper has overemphasized the relation of profit taking and the exploitation of natural resources. There is an assumption, first, that our natural resources have been largely exploited, and, second, that the consumer cannot be greatly injured in the large profits which may accrue from this exploitation.

Exploitation does not need to be the chief characteristic of legitimate economic profit taking in the first place, and in the second place there are many fields yet open in which the prospect of securing economic profit is large, including that of developing public utilities. We are continually boasting of our efficiency in production and so much has been said in recent years concerning our exploited natural resources that we are prone to forget that economically the United States is yet a new country. It is only in some of the fields of primary production that we have achieved

any great efficiency. In the secondary stages of production, and in the very large field of distributing products, scarcely a beginning of efficiency has been made. There is in this respect a large opportunity for the undertaker to secure legitimate economic profit.

Nor is it true that in the field of public utilities no opportunity for profit taking is longer present. It is true that we have very generally agreed that public utilities should be monopolies, but this does not imply the absence of profit. If we grant that the element of risk is necessary to justify profit taking, there yet remains a field in public utilities for such profit.

Many of our cities are yet without adequate public utilities, and with the present growth of urban population there will probably be an increasing demand for the service of such utilities. For example, some of our largest cities are yet depending upon surface transportation exclusively. Improved facilities of transportation, heating, lighting, and communication will be demanded, which will involve an element of risk which will only be assumed by private capital if an opportunity of a sufficient return is afforded. It must always be remembered that capital has a choice in its investment and, if the system of private ownership is to continue, sufficient inducement must be given to capital to go into public utilities.

If the rule of principal and agent is to be adopted in this matter, then it would seem that the logical conclusion is public ownership. The agent receives only wages, the capital being supplied by the principal who assumes all risk; and thus the public, being the principal, should own these utilities and employ workmen to operate them. However, many are not agreed that this is the proper solution. Such a solution would not solve many of the problems of public utilities. Certainly the problems of determining fair and equitable charges, or of deciding upon the particular character of the service, would be no easier. Indeed the problem might be complicated. Consider, for example, the problem arising under the principle of cost of the service as distinguished from the principle of cost to serve. It is now and would under public ownership be desirable to extend water, gas, light, and transportation service to certain consumers or districts that would not and should not pay a price which would cover the cost per unit to extend the service. Yet this would be desirable, not only for the benefit of those served and the community as a whole, but also

for those other consumers whose payments covered the total cost and something in addition. Most of these utilities follow the rule of decreasing cost, and such an extension of the service might result in a net lower cost to those consumers who paid something above cost as compared with what they would pay if these increasing units were not supplied.

I realize that the principle of charging what the traffic will bear has come into ill repute, but the above stated principle is not a crude application of the principle of charging what the traffic will bear, which has come into such ill repute because of its past abuse, especially in the case of railways. Under proper government supervision limited adjustment of charges on the basis of the cost to serve would redound to the benefit of all.

There is another aspect of the question of controlling public utilities which deserves serious consideration. This is the increasing demand from the public for improved service as well as a better manner in being served. Recently a state utility commission ordered a public utility company to dismiss its president on account of his disagreeable manner in dealing with the public. In the case of railways there is a demand for better equipment; in the case of street railways, for better heated and ventilated cars. Cases might be multiplied to illustrate the newer ideas of the public in regard to what they think are their rights over public utility operations. We have been accustomed to state that a monopoly has no good will in the same sense as a competitive business which built up its business not only by fair charges but also by a pleasing manner in serving its customers. Not a few of the public service monopolies have been cultivating good manners in their relation to the public, and we are now promising to legislate into all public service monopolies what practically corresponds to good will in a competitive business.

It is probable that the public, however, is beginning to insist upon a standard of service, both as to manner and rates, which they do not demand or get from private competitive business. There is a widespread belief that public utility organizations are overcapitalized, that they all use and have used improper business methods, and that they charge unduly high rates. The vicious sins of some of these organizations in the past, and the iniquity of some in the present have been visited upon all of the present organizations and give character to the present-day opinions.

If, therefore, the public continues to express their opinions in

increased demands of every character, the logical result must be public ownership, for private capital can not be forced into any particular investment. Furthermore, if any ownership is established, it may even then be difficult to satisfy the public as to the manner of the service and the rates for it. Evidence is not wanting that an increasing number of people believe that the government exists primarily to grant gratuities of some kind.

Public regulation has so far not been a success, at least as measured by what the public expects. Probably we are expecting too much. The demand for complete solution of all economic and social ills is insistent and impatient of delays.

Doubtless most of the commissions have had inadequate force to deal with the numerous complaints, trivial and otherwise, which have come before them. Doubtless some of them have followed a rule of thumb method in dealing with the problem. We have been on the border of the problem and not into it. But progress has been made. The ground has been cleared, and, if the public is somewhat more moderate and the commissions somewhat more able, there is yet promised the preservation of the private initiative and public service in public utility operations.

C. J. Buell: I confess that I am not very much interested in the question of galvanizing dead horses. This system of permitting private corporations to own and exploit our public utilities is fast dying and will soon be dead.

Everywhere in the world the tendency is irresistible toward the public ownership of all those utilities that are in their nature public. A few years more and there will be no such anomalies as public service corporations,—no privately owned railways nor telegraphs nor telephones, no private corporations owning street car lines, nor gas, water, or electric systems.

Until that time comes, we shall need to make the best of our present situation. The people of our cities have lately been learning how to control and regulate their public service corporations very effectively; and the private owners are becoming very much alarmed. This is the secret of the great noise that we hear in favor of *state* commissions to regulate *city* utilities.

This is also the secret of the great "National Civic Federation," composed of owners, attorneys for, and agents of, the great public utility corporations of the whole country. This National Civic Federation is just now very anxious to secure the passage,

in every state in the union, of laws creating state commissions which shall control not only state utilities, but all city utilities as well, thus depriving the cities of any and all control over their own public affairs.

In this state last winter we killed such a bill very dead. Then the Governor threatened to call an extra session of the legislature to pass it; but the opposition was so great that he did not dare issue the call. In the meantime the people are getting their eyes opened to the importance of saving to their cities the principle of home rule and local self-government.

I believe this craze for state commissions has reached its flood, and will now die out, in spite of the efforts of the public service corporations to keep it alive.

I also want to call attention to another very dangerous proposition that some speakers here this morning have advocated. They have urged that the state control the issues of stocks and bonds of these corporations. If that is to be done, how can we escape the necessity of permitting these corporations to charge enough for their services to pay dividends on all these stocks and bonds and thus saddle upon the people forever the burden of watered stock?

No, the true solution of this question is the public ownership of all public utilities, as fast as it can be brought about; and, in the meantime, leave every city free to manage its own affairs. Most of the great cities in the history of the world have been free cities. Babylon and Nineveh, Tyre and Athens, Carthage, Rome, and Alexandria, in the ancient days; Venice, Genoa, Milan, and Florence in Italy, and all the cities of the Hanseatic League in Germany—all these were free cities, just as Hamburg, Bremen, and Lübeck are today free, self-governing, republics within the limits of the German empire.

We should not regulate evils forever, but abolish them as soon as possible.

RALPH E. HEILMAN: Several of the speakers this morning have referred to the regulation of the securities of public service corporations. The important question in such a regulation, to my mind, but one which has apparently been given little consideration is, "To what extent does the approval of securities by a public utility commission mean that a company will be allowed in the future to charge a rate which will permit a fair return upon such securities?"

It is true that the oldest rate making commission in the United States, the Massachusetts Gas and Electric Light Commission, does base its rates upon the securities which it has previously authorized. But this commission does not make a physical valuation of the properties under its jurisdiction. In most of the other states the situation is different. The newer state commissions authorize the issuance of securities, but proceed to base rates upon the reproductive or present value of the property. Sooner or later there will be a discrepancy between such valuations and the stocks and bonds issued for the construction of the property with the approval of the commissions. When this condition arises, must the rates permit a fair return upon the securities issued, regardless of the physical value of the property at the time rates are under consideration?

The answer to this question is not to be found in the laws of any of the states, nor in the formal decisions of any of the commissions. So far as I can learn, but two bodies have even indirectly touched upon this point. The New York Second District Commission says that its approval of stocks and bonds cannot be taken as an absolute guarantee for them, that while it will not approve securities unless it believes the property will have a fair chance of business success, yet it does not thereby guarantee the project as a safe one. Suppose, however, the question is not one of a safe business project, but simply of the amount of earnings to be permitted. Then is the approval of the securities by the commission to carry no assurance whatever to the investor? The United States Supreme Court, in the Consolidated Gas Case, refused to permit the rate for gas in New York City to be lowered beyond the point where a fair return was assured upon all the capitalization which had been previously indirectly authorized by an act of the state legislature. Although the question was not directly an issue in this case, yet the logic of this decision would seem to point to the establishment of the principle that authorization of stocks and bonds by the State establishes capitalization upon which a return must be permitted. There is little doubt in my mind but that such a principle would meet with public approval; for the purpose of public regulation of securities is presumed to be to confine the capitalization to a reasonable amount. Now if a commission has accomplished this purpose and investors have purchased securities with the assurance that the amounts approved represent a reasonable capitalization, a great public protest would

ensue if such investors were later refused a fair return upon such securities by the commission.

If this principle is to become established, it will mean a radical change in our theory of rate making, and many other complications. It will mean, in the case of plants which have come into existence under the present régime of regulation, the substitution of original cost as the basis for rate making in the place of present or reproductive value; that is, presuming that the securities approved represent the real cost of the property. In the case of utilities which were in existence before the present régime of regulation, the situation will be much more complicated. Considerable of the early securities issued by such companies represents water, but later securities, issued under regulation, represent bona fide investments. Shall the company be permitted a return upon its heavy overcapitalization simply in order that the purchasers of recent securities authorized by the state shall get a fair return upon their securities? Furthermore, the laws in practically all the states permit the refunding of securities under the supervision of the commissions. The old securities to be refunded may represent water, but, when they are refunded, they become securities issued with the approval of the state. Does this mean that thereby a return upon them is made sure?

Two ways out of these difficulties are suggested. It is proposed that the state laws should stipulate that the state does not become obligated to permit a return upon securities simply because it has authorized them. This measure, while it would eliminate the difficulties, would, I believe, appeal to the public as unjust, and would, therefore, fail of passage. The other proposal, that is, that of issuing stocks without definite monetary value, is also open to grave objections. But, certainly, before this process of state authorization of securities is carried much farther, it is highly desirable that we should know what is to be the future status of these securities, in the hands of the investors, which bear the stamp of public approval and authorization.

HOWARD C. HOPSON: A previous speaker has stated that there is a possibility that the public service commissions of the various states in granting authorities to issue securities will, by so doing, validate those securities so that they will in subsequent rate proceedings have to be recognized at full value. I am of the opinion that this is not correct. In some of the states, California,

for example, the law specifically provides that the issuance of securities is a privilege given by the state to its own creation, namely, a corporation engaged in furnishing service to the public, and the authorization by the commission shall not be binding in any subsequent proceeding having to do with rates or service. Similarly, the decisions of public service commissions in other states, of which the upstate commission in New York (with which I am connected) is an example, have specifically stated that the authorization of the securities by the commission is in no sense of the word a guarantee that such securities will pay to their holders a satisfactory return. Requiring these corporations to secure authority from the commissions is to prevent the issuance of more securities than are necessary and to make certain that when such securities are sold their proceeds are actually invested for the benefit of the company engaged in serving the public.

Financing is of secondary and indirect importance to the general public. It was placed under the control of the commissions in order that the public interest might be assured with reference to two matters which are of primary and direct importance, namely, service and rates. It has from the beginning been the opinion of the New York commissions that service is the more important and has a more direct bearing upon the general prosperity and well being. The regulation of public utility corporations, however, in the minds of most people is most closely associated with rates. When discussing rates the principal bone of contention, as is evidenced by the paper which has just been read, is the basis for determining the return on capital in the business.

In the early discussion of this subject it was uniformly assumed, so far as I can recollect, that the proper basis of computing this return was the amount of capital that was actually invested. Due to the fact, however, that this discussion centered principally around railroads involving a very large amount of property of diverse character, spread over a wide area, it was, without a great deal of investigation, assumed to be impossible to ascertain the actual investment or original cost and, as the nearest thing to it, and merely as a substitute, there came to be used the so-called estimate of value which is now definitely referred to as the "cost of reproduction" or "duplication cost." This is so generally used and has been before the courts so frequently that it is now assumed by many persons to have been judicially determined upon as the only proper method of arriving at the amount of capital in

use, and that original cost, even if definitely known, is not acceptable nor useful.

I am, however, not aware of any case which has been before the highest court in which the question was squarely presented as to whether original cost or cost of reproduction should be used. In connection with recent investigations of railroads as well as of public utility properties, it is clear that it is, if anything, less difficult to ascertain the original cost of the physical property used in the public service than to arrive at a satisfactory estimate of cost of duplication,—which is not usually much of an improvement over a mere guess. There can be no doubt that a decision which will be uniformly satisfactory to the public, which is not and cannot be informed as to the technical details, and to the holders of the securities, will be much more likely to give satisfaction if the return on capital is based upon the cash cost of the facilities which are used in the existing business.

One of the fundamental difficulties with current theories and discussions of rate questions, which occurs in opinions by commissions and courts as well as in academic papers, is the assumption that an all embracing mathematical formula can be evolved if a sufficiently thorough and exhaustive study is made, and after that it will only be necessary to insert in this formula the proper factors, such as reasonable operating expenses, fair rate of return, amount of capital upon which a return is to be allowed, and, *ipso facto,* the proper rate will be derived. The trouble with this assumption is that not all of the factors which are used in making rates are susceptible of mathematical correlation. The element of judgment is involved in this as well as in most other mundane problems, and a reasonably satisfactory, just, and correct decision can only be reached when this judgment is expressed by candid men properly qualified to deal with the subject. In other words, we again return to the question of personnel. How are we to get on the commissions men of sufficient caliber to deal with these questions in a broad and intelligent manner?

In conclusion I wish to reiterate that the question of service is much more important to the community at large than that of rates. Many rate litigations which have cost large sums of money have resulted in only trifling reductions to any particular individuals. If the same amount of effort had been devoted to extensions and improvements of service the reward to the whole community for the expenditure of energy and money would have

been many times greater. If the present tendency continues of rising prices and decreasing purchasing power of the dollar, in a few years the country will be face to face with the problem of securing maximum service without considerable increases in the present rates.

J. G. OHSOL: The number of difficulties indicated here has not been exhausted yet. Our public service commissions have been considering the investors and the consumers only. They have overlooked the most important third element,—labor. "Rates" and "service" were mentioned here as the basic elements in any public utility. But what else is service than so many hours of labor? Do not rates depend on wages paid to laborers engaged in these utilities? Hence labor must be considered in every policy adopted or advocated in regard to public utilities.

The fixing of *railway rates*, for instance, will inevitably bring up the problem of controlling and eventually of manufacturing the railway *rails*, also the compulsory arbitration of *wages*. The railroads are not yet under government ownership, but the arbitration of the wages of railroad men has already begun under the Newland act. It is not compulsory yet, though it may become so in time.

But the interests of organized labor are opposed to such compulsory arbitration. Only a month ago the Seattle convention of the American Federation of Labor declared itself against compulsory arbitration. Organized labor has taken this stand quite correctly. It believes that it can still get better conditions when dealing directly with the employers than through arbitration commissions in which organized labor is always in the minority.

In discussing public ownership we should bear in mind that the main issue will be *how we are going to get it*. For the present moment it is likely to be *government* ownership in some of the industries, say telegraphs. But are we going to pay some nine hundred million dollars to one company alone for an outworn equipment? This question will resolve itself into another one: can the government start competitive enterprises to oust some private monopolies or will it buy out the existing ones at an enormous expense?

And here again the status of labor must be considered. As soon as railroads, for instance, come under government ownership the federal eight hour law must automatically apply to every rail-

road man. At the present moment even the sixteen-hour-maximum law is violated by the railroads in hundreds of thousands of cases. This state of affairs cannot continue unchanged. The solution of the problem of public ownership cannot be brought about by scientific discussion. The conflicting interests involved in it can be settled only after a sharp struggle.